

DIRECTORY OF OCCUPATIONS

01000 ADMINISTRATIVE SUPPORT AND CLERICAL OCCUPATIONS

This category includes occupations concerned with preparing, transcribing, transferring, systematizing, and preserving written communications and records; gathering and distributing information; operating office machines; storing, distributing, and accounting for stores of materials; operating telephone switchboards; distributing mail and delivering messages; and performing other administrative support and clerical duties.

ACCOUNTING CLERK (Occupational Base)

Performs one or more accounting tasks such as posting to registers and ledgers; balancing and reconciling accounts; verifying the internal consistency, completeness, and mathematical accuracy of accounting documents; assigning prescribed accounting distribution codes; examining and verifying the clerical accuracy of various types of reports, lists, calculations, postings, etc.; preparing journal vouchers; or making entries or adjustments to accounts.

Level I and II require a basic knowledge of routine clerical methods and office practices and procedures as they relate to the clerical processing and recording of transactions and accounting information. Levels III and IV require a knowledge of and understanding of the established and standardized bookkeeping and accounting procedures and techniques used in an accounting system, or a segment of an accounting system, where there are few variations in the types of transactions handled. In addition, some job at each level may require a basic knowledge and understanding of the terminology, codes, and processes used in an automated accounting system.

01011 ACCOUNTING CLERK I

Performs very simple and routine accounting clerical operations, for example, recognizing and comparing easily identified numbers and codes on similar and repetitive accounting documents, verifying mathematical accuracy, and identifying discrepancies and bringing them to the supervisor's attention. Supervisor gives clear and detailed instructions for specific assignments. Employee refers to supervisor all matters not covered by instructions. Work is closely controlled and reviewed in detail for accuracy, adequacy, and adherence to instructions.

01012 ACCOUNTING CLERK II

Performs one or more routine accounting clerical operations, such as: examining, verifying, and correcting accounting transactions to insure completeness and accuracy of data and proper identification of accounts, and checking that expenditures will not exceed obligations in specified accounts; totaling, balancing, and reconciling collection vouchers; posting data to transaction sheets where employee identifies proper accounts and items to be posted; and coding documents in accordance with a chart (listing) of accounts. Employee follows specific and detailed accounting procedures. Completed work is reviewed for accuracy and compliance with procedures.

01013 ACCOUNTING CLERK III

Uses a knowledge of double entry bookkeeping in performing one or more of the following: Posts actions to journals, identifying subsidiary accounts affected and debit and credit entries to be made and assigning proper codes; reviews computer printouts against manually maintained journals, detecting and correcting erroneous postings, and preparing documents to adjust accounting classifications and other data; or reviews lists of transactions rejected by an automated system, determining reasons for rejections, and preparing necessary correcting material. On routine assignments, employee selects and applies established procedures and techniques. Detailed instructions are provided for difficult or unusual assignments. Completed work and methods used are reviewed for technical accuracy.

01014 ACCOUNTING CLERK IV

Maintains journals or subsidiary ledgers of an accounting system and balances and reconciles accounts. Typical duties include one or both of the following: Reviews invoices and statements (verifying information, ensuring sufficient funds have been obligated, and if questionable, resolving with the submitting unit, determining accounts involved, coding transactions, and processing material through data processing for application in the accounting system); and/or analyzes and reconciles computer printouts with operating unit reports (contacting units and researching causes of discrepancies, and taking action to ensure that accounts balance). Employee resolves problems in recurring assignments in accordance with previous training and experience. Supervisor provides suggestions for handling unusual or nonrecurring transactions. Conformance with requirements and technical soundness of

completed work are reviewed by the supervisor or are controlled by mechanisms built into the accounting system. Excluded from Level IV are positions responsible for maintaining either a general ledger or a general ledger in combination with subsidiary accounts.

01030 COURT REPORTER

Records examination, testimony, judicial opinions, judge's charge to jury, judgment or sentence of court, or other proceedings in court of law by manual or machine shorthand. Reads portions of transcript during trial on judge's request, and asks speakers to clarify inaudible statements. Transcribes recorded material, using typewriter, or dictates material into recording machine

01060 DOCUMENT PREPARATION CLERK (Document Preparer)

Prepares documents such as brochures, books, periodicals, catalogs, and pamphlets for copying or photocopying, photographic, and other reproducing office machine. Cuts documents into individual pages of standard size and format when allowed by margin space, using paper cutter or razor knife. Reproduces document pages as necessary to improve clarity or to reduce one or more pages into single page of standard size for copying machine being used, using photocopying machine. Stamps standard symbols on pages or inserts instruction cards between pages of material to notify Duplicating Machine Operator of special handling, such as manual repositioning during copying procedure. Prepares cover sheet and document folder for material, and index card for organizations' files indicating information, such as organization's name and address, subject or product category, and index code to identify material. Inserts material to be copied in document folder, and files folder for processing according to index code and copying priority schedule.

01115 GENERAL CLERK I

Follows a few clearly detailed procedures in performing simple repetitive tasks in the same sequence, such as filing precoded documents in a chronological file or operating office equipment, e.g., mimeograph, photocopy, addressograph or mailing machine.

01116 GENERAL CLERK II

Follows a number of specific procedures in completing several repetitive clerical steps performed in a prescribed or slightly varied sequence, such as coding and filing documents in an extensive alphabetical file, simple posting to individual accounts, opening mail, running mail through metering machines, and calculating and posting charges to departmental accounts. Little or no subject-matter knowledge is required, but the clerk needs to choose the proper procedure for each task.

01117 GENERAL CLERK III

Work requires a familiarity with the terminology of the office unit. Selects appropriate methods from a wide variety of procedures or makes simple adaptations and interpretations of a limited number of substantive guides and manuals. The clerical steps often vary in type or sequence, depending on the task. Recognized problems are referred to others.

01118 GENERAL CLERK IV

Uses some subject-matter knowledge and judgement to complete assignments consisting of numerous steps that vary in nature and sequence. Selects from alternative methods and refers problems not solvable by adapting or interpreting substantive guides, manuals, or procedures. Typical duties include: assisting in a variety of administrative matters; maintaining a wide variety of financial or other records; verifying statistical reports for accuracy and completeness; and handling and adjusting complaints. May also direct lower level clerks. Positions above level IV are excluded. Such positions (which may include supervisory responsibility over lower level clerks) require workers to use a thorough knowledge of an office's work and routine to: 1) choose among widely varying methods and procedures to process complex transactions; and 2) select or devise steps necessary to complete assignments. Typical jobs covered by this exclusion include administrative assistants, clerical supervisors, and office managers.

01311 KEY ENTRY OPERATOR I

Work is routine and repetitive. Under close supervision or following specific procedures or detailed instructions, works from various standardized source documents which have been coded and require little or no selecting, coding or interpreting of data to be entered. Refers to supervisor problems arising from erroneous items, codes, or missing information.

01132 KEY ENTRY OPERATOR II

Work requires the application of experience and judgment in selecting procedures to be followed and in searching for, interpreting, selecting, or coding items to be entered from a variety of source documents. On occasion may also perform routine work as described for Level I.

Excluded are operators above Level II using the key entry controls to access, read, and evaluate the substance of specific records to take substantive actions, or to make entries requiring a similar level of knowledge.

01191 ORDER CLERK I

Handles orders involving items which have readily identified uses and applications. May refer to a catalog, manufacturer's manual or similar document to insure that proper item is supplied or to verify price of ordered item.

01192 ORDER CLERK II

Handles orders that involve making judgments such as choosing which specific product or material from the establishment's product lines will satisfy the customer's needs, or determining the price to be quoted when pricing involves more than merely referring to a price list or making some simple mathematical calculations.

01311 THRU 01315 SECRETARY I thru V (Occupational Base)

Provides principal secretarial support in an office, usually to one individual, and, in some cases, also to the subordinate staff of that individual. Maintains a close and highly responsive relationship to the day-to-day activities of the supervisor and staff. Works fairly independently, receiving a minimum of detailed supervision and guidance. Performs varied clerical and secretarial duties requiring a knowledge of office routine and an understanding of the organization, programs, and procedures related to the work of the office.

Classification by Level

Secretary jobs which meet the required characteristics are matched at one of five levels according to two factors: (a) Level of the secretary's supervisor within the overall organizational structure, and (b) level of the secretary's responsibility. The table following the explanations of these factors indicates the level of the secretary for each combination of factors.

Level of Secretary's Supervisor (LS)

Secretaries should be matched with one of the three LS levels below that best describes the organization of the secretary's supervisor.

- LS-1
 - Organizational structure is not complex and internal procedures and administrative controls are simple and informal; supervisor directs staff through face-to-face meetings.
- LS-2
 - Organizational structure is complex and is divided into subordinate groups that usually differ from each other as to subject matter, function, etc.; supervisor usually directs staff through intermediate supervisors; and internal procedures and administrative controls are formal. An entire organization (e.g., division, subsidiary, or parent organization) may contain a variety of subordinate groups which meet the LS-2 definition. Therefore, it is not unusual for one LS-2 supervisor to report to another LS-2 supervisor.
 - The presence of subordinate supervisors does not by itself mean LS-2 applies, e.g., a clerical processing organization divided into several units, each performing very similar work, is placed in LS-1.
 - In smaller organizations or industries such as retail trades, with relatively few organizational levels, the supervisor may have an impact on the policies and major programs of the entire organization, and may deal with important outside contacts as described in LS-3.
- LS-3

- Organizational structure is divided into two or more subordinate supervisory levels (of which at least one is a managerial level) with several subdivisions at each level. Executive's program(s) are usually interlocked on a direct and continuing basis with other major organizational segments, requiring constant attention to extensive formal coordination, clearances, and procedural controls. Executive typically has: Financial decision-making authority for assigned program(s); considerable impact on the entire organization's financial position or image; and responsibility for, or has staff specialists in, such areas as personnel and administration for assigned organization. Executive plays an important role in determining the policies and major programs of the entire organization, and spends considerable time dealing with outside parties actively interested in assigned program(s) and current or controversial issues.

Level of Secretary's Responsibility (LR)

This factor evaluates the nature of the work relationship between the secretary and the supervisor or staff, and the extent to which the secretary is expected to exercise initiative and judgment. Secretaries should be matched at the level best describing their level of responsibility. When a position's duties span more than one LR level, the introductory paragraph at the beginning of each LR level should be used to determine which of the levels best matches the position. (Typically, secretaries performing at the higher levels of responsibility also perform duties described at the lower levels.)

- LR-1 Carries out recurring office procedures independently. Selects the guideline or reference which fits the specific case. Supervisor provides specific instructions on new assignments and checks completed work for accuracy. Performs varied duties including or comparable to the following:
 1. Responds to routine telephone requests which have standard answers; refers calls and visitors to appropriate staff. Controls mail and assures timely staff response; may send form letters;
 2. As instructed, maintains supervisor's calendar, makes appointments, and arranges for meeting rooms;
 3. Reviews materials prepared for supervisor's approval for typographical accuracy and proper format;
 4. Maintains recurring internal reports, such as time and leave records, office equipment listings, correspondence controls, and training plans;
 5. Requisitions supplies, printing, maintenance, or other services. Types, takes and transcribes dictation, and establishes and maintains office files.
- LR-2 Handles differing situations, problems, and deviations in the work of the office according to the supervisor's general instructions, priorities, duties, policies, and program goals. Supervisor may assist secretary with special assignments. Duties include or are comparable to the following:
 1. Screens telephone calls, visitors, and incoming correspondence; personally responds to requests for information concerning office procedures; determines which requests should be handled by the supervisor, appropriate staff member or other offices. May prepare and sign routine, nontechnical correspondence in own or supervisor's name;
 2. Schedules tentative appointments without prior clearance. Makes arrangements for conferences and meetings and assembles established background materials, as directed. May attend meetings and record and report on the proceedings;
 3. Reviews outgoing materials and correspondence for internal consistency and conformance with supervisor's procedures; assures that proper clearances have been obtained, when needed;
 4. Collects information from the files or staff for routine inquiries on office program(s) or periodic reports. Refers nonroutine requests to supervisor or staff;
 5. Explains to subordinate staff supervisor's requirements concerning office procedures. Coordinates personnel and administrative forms for the office and forwards for processing.
- LR-3 Uses greater judgment and initiative to determine the approach or action to take in nonroutine situations. Interprets and adapts guidelines, including unwritten policies, precedents, and practices, which are not always completely applicable to changing situations. Duties include or are comparable to the following:
 1. Based on a knowledge of the supervisor's views, composes correspondence on own initiative about administrative matters and general office policies for supervisor's approval;
 2. Anticipates and prepares materials needed by the supervisor for conferences, correspondence, appointments, meetings, telephone calls, etc., and informs supervisor on matters to be considered;

3. Reads publications, regulations, and directives and takes action or refers those that are important to the supervisor and staff;
 4. Prepares special or one-time reports, summaries, or replies to inquiries, selecting relevant information from a variety of sources such as reports, documents, correspondence, other offices, etc., under general directions;
 5. Advises secretaries in subordinate offices on new procedures; requests information needed from the subordinate office(s) for periodic or special conferences, reports, inquiries, etc. Shifts clerical staff to accommodate workload needs.
- LR-4 Handles a wide variety of situations and conflicts involving the clerical or administrative functions of the office which often cannot be brought to the attention of the executive. The executive sets the overall objectives of the work. Secretary may participate in developing the work deadlines. Duties include or are comparable to the following:
 1. Composes correspondence requiring some understanding of technical matters; may sign for executive when technical or policy content has been authorized;
 2. Notes commitments made by executive during meetings and arranges for staff implementation. On own initiative, arranges for staff member to represent organization at conferences and meetings, establishes appointment priorities, or reschedules or refuses appointments or invitations;
 3. Reads outgoing correspondence for executive's approval and alerts writers to any conflict with the file or departure from policies or executive's viewpoints; gives advice to resolve the problems;
 4. Summarizes the content of incoming materials, specially gathered information, or meetings to assist executive; coordinates the new information with background office sources; draws attention to important parts or conflicts;
 5. In the executive's absence, ensures that requests for action or information are relayed to the appropriate staff member; as needed, interprets request and helps implement action; makes sure that information is furnished in timely manner; decides whether executive should be notified of important or emergency matters.

Excludes secretaries performing any of the following duties:

Acts as office manager for the executive's organization, e.g., determines when new procedures are needed for changing situations and devises and implements alternatives; revises or clarifies procedures to eliminate conflict or duplication; identifies and resolves various problems that affect the orderly flow of work in transactions with parties outside the organization.

Prepares agenda for conferences; explains discussion topics to participants; drafts introductions and develops background information and prepares outlines for executive or staff member(s) to use in writing speeches. Advises individuals outside the organization on the executive's views on major policies or current issues facing the organization; contacts or responds to contact from high-ranking outside officials (e.g., city or State officials, members of Congress, presidents of national unions or large national or international firms, etc.) in unique situations. These officials may be relatively inaccessible, and each contact typically must be handled differently, using judgement and discretion.

CRITERIA FOR MATCHING SECRETARIES BY LEVEL

Secretary I (01311), Secretary II (01312), Secretary III (01313), Secretary IV (01314), and Secretary V (01315)

Intentionally blank	LR-1	LR-2	LR-3	LR-4
LS-1	I 01311	II 01312	III 01313	IV 01314
LS-2	I 01311	III 01313	IV 01314	V 01315
LS-3	I 01311	IV 01314	V 01315	V 01315

01611 WORD PROCESSOR I

Produces a variety of standard documents, such as correspondence, form letters, reports, tables and other printed materials. Work requires skill in typing; a knowledge of grammar, punctuation and spelling; and ability to use reference guides and equipment manuals. Performs familiar, routine assignments following standard procedures. Seeks further instructions for assignments requiring deviations from established procedures.

01612 WORD PROCESSOR II

Uses a knowledge of varied and advanced functions of one software type, a knowledge of varied functions of different types of software, or a knowledge of specialized or technical terminology to perform such typical duties as: Editing and reformatting written or electronic drafts. Examples include: Correcting function codes; adjusting spacing and formatting; and standardizing headings, margins, and indentations. Transcribing scientific reports, lab analyses, legal proceedings, or similar material from voice tapes or handwritten drafts.

Work requires knowledge of specialized, technical, or scientific terminology. Work requires familiarity with office terminology and practices; incumbent corrects copy and questions originator of document concerning missing information, improper formatting, or discrepancies in instructions. Supervisor sets priorities and deadlines on continuing assignments, furnishes general instructions for recurring work, and provides specific instructions for new or unique projects. May lead lower level word processors.

01613 WORD PROCESSOR III

Requires both a comprehensive knowledge of word processing software applications and office practices and a high degree of skill in applying software functions to prepare complex and detailed documents. For example, processes complex and lengthy technical reports which include tables, graphs, charts, or multiple columns. Uses either different word processing packages or many different style macros or special command functions. Independently completes assignments and resolves problems.

01611 WORD PROCESSOR I

Produces a variety of standard documents, such as correspondence, form letters, reports, tables and other printed materials. Work requires skill in typing; a knowledge of grammar, punctuation and spelling; and ability to use reference guides and equipment manuals. Performs familiar, routine assignments following standard procedures. Seeks further instructions for assignments requiring deviations from established procedures.

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Uses a knowledge of varied and advanced functions of one software type, a knowledge of varied functions of different types of software, or a knowledge of specialized or technical terminology to perform such typical duties as: Editing and reformatting written or electronic drafts. Examples include: Correcting function codes; adjusting spacing and formatting; and standardizing headings, margins, and indentations. Transcribing scientific reports, lab analyses, legal proceedings, or similar material from voice tapes or handwritten drafts.

Work requires knowledge of specialized, technical, or scientific terminology. Work requires familiarity with office terminology and practices; incumbent corrects copy and questions originator of document concerning missing information, improper formatting, or discrepancies in instructions. Supervisor sets priorities and deadlines on continuing assignments, furnishes general instructions for recurring work, and provides specific instructions for new or unique projects. May lead lower level word processors.

01613 WORD PROCESSOR III

Requires both a comprehensive knowledge of word processing software applications and office practices and a high degree of skill in applying software functions to prepare complex and detailed documents. For example, processes complex and lengthy technical reports which include tables, graphs, charts, or multiple columns. Uses either different word processing packages or many different style macros or special command functions. Independently completes assignments and resolves problems.

03000 AUTOMATIC DATA PROCESSING OCCUPATIONS

This category includes occupations concerned with the utilization of the computer in the analysis and solution of business, scientific, engineering and other technical problems; operating electronic, optical, and electromechanical machines that record, store, process, and transcribe data from punchcards, paper tape, magnetic tape or other sources to solve mathematical, engineering, accounting, or technical problems, to keep records or to supply information;

programs in computer languages to perform mathematical, engineering and scientific computations or auditing, payroll, mailing list and text handling functions; and storing and retrieving computer tapes

03010 COMPUTER DATA LIBRARIAN

Maintains library of media (tapes, disks, cards, cassettes) used for automatic data processing applications. Classifies, catalogs, and stores items in accordance with standardized system. Issues media for processing on request.

Maintains record of items received, stored, issued, and returned. Examines returned media for damage or excessive wear to determine if they need replacing. May make minor repairs to damaged tapes.

03041 COMPUTER OPERATOR I

Works under close personal supervision and is provided detailed written or oral guidance before and during assignments. As instructed, resolves common operating problems. May serve as an assistant operator working under close supervision or performing a portion of a more senior operator's work.

03042 COMPUTER OPERATOR II

Processes scheduled routines which present few difficult operating problems (e.g., infrequent or easily resolved error conditions). In response to computer output instructions or error conditions, applies standard operating or corrective procedure. Refers problems which do not respond to preplanned procedure. May serve as an assistant operator, working under general supervision.

03043 COMPUTER OPERATOR III

Processes a range of scheduled routines. In addition to operating the system and resolving common error conditions, diagnoses and acts on machine stoppage and error conditions not fully covered by existing procedures and guidelines (e.g., resetting switches and other controls or making mechanical adjustments to maintain or restore equipment operations). In response to computer output instructions or error conditions, may deviate from standard procedures if standard procedures do not provide a solution. Refers problems which do not respond to corrective procedures.

03044 COMPUTER OPERATOR IV

Adapts to a variety of nonstandard problems which require extensive operator intervention (e.g., frequent introduction of new programs, applications, or procedures). In response to computer output instructions or error conditions, chooses or devises a course of action from among several alternatives and alters or deviates from standard procedures if standard procedures do not provide a solution (e.g., reassigning equipment in order to work around faulty equipment or transfer channels); then refers problems. Typically, completed work is submitted to users without supervisory review.

03045 COMPUTER OPERATOR V

Resolves a variety of difficult operating problems (e.g., making unusual equipment connections and rarely used equipment and channel configurations to direct processing through or around problems in equipment, circuits, or channels or reviewing test run requirements and developing unusual system configurations that will allow test programs to process without interfering with ongoing job requirements). In response to computer output instructions and error conditions or to avoid loss of information or to conserve computer time, operator deviates from standard procedures. Such actions may materially alter the computer unit's production plans. May spend considerable time away from the control station providing technical assistance to lower level operators and assisting programmers, systems analysts, and subject matter specialists in resolving problems.

03071 COMPUTER PROGRAMMER I

Assists higher level staff by performing elementary programming tasks which concern limited and simple data items and steps which closely follow patterns of previous work done in the organization, e.g., drawing flow charts, writing operator instructions, or coding and testing routines to accumulate counts, tallies, or summaries. May perform routine programming assignments (as described in Level II) under close supervision.

In addition, to assist higher level staff, may perform elementary fact-finding concerning a specified work process, e.g., a file of clerical records which is treated as a unit (invoices, requisitions, or purchase orders, etc.); reports findings to higher level staff.

May receive training in elementary fact-finding. Detailed, step-by-step instructions are given for each task and any deviation must be authorized by a supervisor. Work is closely monitored in progress and reviewed in detail upon completion.

03072 COMPUTER PROGRAMMER II

At this level, initial assignments are designed to develop competence in applying established programming procedures to routine problems. Performs routine programming assignments that do not require skilled background experience but do require knowledge of established programming procedures and data processing requirements. Works according to clear cut and complete specifications. The data are refined and the format of the final product is very similar to that of the input or is well defined when significantly different, i.e., there are few, if any, problems with interrelating varied records and outputs.

Maintains and modifies routine programs. Makes approved changes by amending program flow charts, developing detailed processing logic, and coding changes. Tests and documents modifications and writes operator instructions. May write routine new programs using prescribed specifications; may confer with EDP personnel to clarify procedures, processing logic, etc.

In addition, may evaluate simple interrelationships in the immediate programming area, e.g., whether a contemplated change in one part of a simple program would cause unwanted results in a related part; confers with user representatives to gain an understanding of the situation sufficient to formulate the needed change; and implements the change upon approval of the supervisor or higher level staff. The incumbent is provided with charts, narrative descriptions of the functions performed, an approved statement of the product desired (e.g., a change in a local establishment report), and the inputs, outputs, and record formats.

Reviews objectives and assignment details with higher level staff to insure thorough understanding; uses judgment in selecting among authorized procedures and seeks assistance when guidelines are inadequate, significant deviations are proposed, or when unanticipated problems arise. Work is usually monitored in progress; all work is reviewed upon completion for accuracy and compliance with standards.

03073 COMPUTER PROGRAMMER III

As a fully qualified computer programmer, applies standard programming procedures and detailed knowledge of pertinent subject matter (e.g., work processes, governing rules, clerical procedures, etc.) in a programming area such as: a record keeping operation (supply, personnel and payroll, inventory, purchasing, insurance payments, depositor accounts, etc.); a well-defined statistical or scientific problem; or other standardized operation or problem. Works according to approved statements of requirements and detailed specifications. While the data are clear cut, related, and equally available, there may be substantial interrelationships of a variety of records and several varied sequences of formats are usually produced. The programs developed or modified typically are linked to several other programs in that the output of one becomes the input for another. Recognizes probable interactions of other related programs with the assigned program(s) and is familiar with related system software and computer equipment. Solves conventional programming problems. (In small organizations, may maintain programs which concern or combine several operations, i.e., users, or develop programs where there is one primary user and the others give input.)

Performs such duties as: develops, modifies, and maintains assigned programs; designs and implements modifications to the interrelation of files and records within programs in consultations with higher level staff; monitors the operation of assigned programs and responds to problems by diagnosing and correcting errors in logic and coding; and implements and/or maintains assigned portions of a scientific programming project, applying established scientific programming techniques to well-defined mathematical, statistical, engineering, or other scientific problems usually requiring the translation of mathematical notation into processing logic and code. (Scientific programming includes assignments such as: using predetermined physical laws expressed in mathematical terms to relate one set of data to another; the routine storage and retrieval of field test data; and using procedures for real-time command and control, scientific data reduction, signal processing, or similar areas.) Tests and documents work and writes and maintains operator instructions for assigned programs. Confers with other EDP personnel to obtain or provide factual data.

In addition, may carry out fact-finding and programming analysis of a single activity or routine problem, applying established procedures where the nature of the program, feasibility, computer equipment, and programming language have already been decided. May analyze present performance of the program and take action to correct

deficiencies based on discussion with the user and consultation with and approval of the supervisor or higher level staff. May assist in the review and analysis of detailed program specifications and in program design to meet changes in work processes.

Works independently under specified objectives; applies judgment in devising program logic and in selecting and adapting standard programming procedures; resolves problems and deviations according to established practices; and obtains advice where precedents are unclear or not available. Completed work is reviewed for conformance to standards, timeliness, and efficiency. May guide or instruct lower level programmers; may supervise technicians and others who assist in specific assignments. Works on complex programs under close direction of higher level staff or supervisor. May assist higher level staff by independently performing moderately complex tasks assigned, and performing complex tasks under close supervision.

03074 COMPUTER PROGRAMMER IV

Applies expertise in programming procedures to complex programs; recommends the redesign of programs, investigates and analyzes feasibility and program requirements, and develops programming specifications. Assigned programs typically affect a broad multi-user computer system which meets the data processing needs of a broad area (e.g., manufacturing, logistics planning, finance management, human resources, or material management) or a computer system for a project in engineering, research, accounting, statistics, etc. Plans the full range of programming actions to produce several interrelated but different products from numerous and diverse data elements which are usually from different sources; solves difficult programming problems. Uses knowledge of pertinent system software, computer equipment, work processes, regulations, and management practices.

Performs such duties as: develops, modifies, and maintains complex programs; designs and implements the interrelations of files and records within programs which will effectively fit into the overall design of the project; working with problems or concepts, develops programs for the solution to major scientific computational problems requiring the analysis and development of logical or mathematical descriptions of functions to be programmed; and develops occasional special programs, e.g., a critical path analysis program to assist in managing a special project. Tests, documents, and writes operating instructions for all work. Confers with other EDP personnel to secure information, investigate and resolve problems and coordinate work efforts.

In addition, performs such programming analysis as: investigating the feasibility of alternate program design approaches to determine the best balanced solution, e.g., one that will best satisfy immediate user needs, facilitate subsequent modification, and conserve resources; on typical maintenance projects and smaller scale, limited new projects, assisting user personnel in defining problems or needs and determining work organization, the necessary files and records, and their interrelation with the program; or on large or more complicated projects, participating as a team member along with other EDP personnel and users and having responsibility for a portion of the project.

Works independently under overall objectives and direction, apprising the supervisor about progress and unusual complications. Modifies and adapts precedent solutions and proven approaches. Guidelines include constraints imposed by the related programs with which the incumbent's programs must be meshed. Completed work is reviewed for timeliness, compatibility with other work, and effectiveness in meeting requirements. May function as team leader or supervise a few lower level programmers or technicians on assigned work.

03101 COMPUTER SYSTEMS ANALYST I

At this level, initial assignments are designed to expand practical experience in applying systems analysis techniques and procedures. Provides several phases of the required systems analysis where the nature of the system is predetermined. Uses established fact finding approaches, knowledge of pertinent work processes and procedures, and familiarity with related computer programming practices, system software, and computer equipment.

Carries out fact finding and analysis as assigned, usually of a single activity or a routine problem; applies established procedures where the nature of the system, feasibility, computer equipment and programming language have already been decided; may assist a higher level systems analyst by preparing the detailed specifications required by computer programmers from information developed by the higher level analyst, may research routine user problems and solve them by modifying the existing system when the solutions follow clear precedents. When cost and deadline estimates are required, results receive closer review.

The supervisor defines objectives, priorities, and deadlines. Incumbents work independently; adapt guides to specific situations; resolve problems and deviations according to established practices; and obtain advice where precedents are unclear or not available. Completed work is reviewed for conformance to requirements, timeliness, and efficiency. May supervise technicians and others who assist in specific assignments.

03102 COMPUTER SYSTEMS ANALYST II

Applies systems analysis and design skills in an area such as a record keeping or scientific operation. A system of several varied sequences or formats is usually developed, e.g., develops systems for maintaining depositor accounts in a bank, maintaining accounts receivable in a retail establishment, maintaining inventory accounts in a manufacturing or wholesale establishment, or processing a limited problem in a scientific project. Requires competence in most phases of system analysis and knowledge of pertinent system software and computer equipment and of the work processes, applicable regulations, work load, and practices of the assigned subject-matter area. Recognizes probable interactions of related computer systems and predicts impact of a change in assigned system.

Reviews proposals which consist of objectives, scope, and user expectations; gathers facts, analyzes data, and prepares a project synopsis which compares alternatives in terms of cost, time, availability of equipment and personnel, and recommends a course of action; and upon approval of synopsis, prepares specifications for development of computer programs. Determines and resolves data processing problems and coordinates the work with program, users, etc.; orients user personnel on new or changed procedures. May conduct special projects such as data element and code standardization throughout a broad system, working under specific objectives and bringing to the attention of the supervisor any unusual problems or controversies.

Works independently under overall project objectives and requirements; appraises supervisor about progress and unusual complications. Guidelines usually include existing systems and the constraints imposed by related systems with which the incumbent's work must be meshed. Adapts design approaches successfully used in precedent systems. Completed work is reviewed for timeliness, compatibility with other work, and effectiveness in meeting requirements. May provide functional direction to lower level assistants on assigned work.

OR

Works on a segment of a complex data processing scheme or broad system, as described for computer systems analyst, level III. Works independently on routine assignments and receives instructions and guidance on complex assignments. Work is reviewed for accuracy of judgment, compliance with instructions, and to insure proper alignment with the overall system.

03103 COMPUTER SYSTEMS ANALYST III

Applies systems analysis and design techniques to complex computer systems in a broad area such as manufacturing; finance management; engineering, accounting, or statistics; logistics planning; material management, etc. Usually, there are multiple users of the system, however, there may be complex one-user systems, e.g., for engineering or research projects. Requires competence in all phases of systems analysis techniques, concepts, and methods and knowledge of available system software, computer equipment, and the regulations, structure, techniques, and management practices of one or more subject-matter areas. Since input data usually come from diverse sources is responsible for recognizing probable conflicts and integrating diverse data elements and sources. Produces innovative solutions for a variety of complex problems.

Maintains and modifies complex systems or develops new subsystems such as an integrated production scheduling, inventory control, cost analysis, or sales analysis record in which every item of each type is automatically processed through the full system of records. Guides users in formulating requirements; advises on alternatives and on the implications of new or revised data processing systems; analyzes resulting user project proposals, identifies omissions and errors in requirements and conducts feasibility studies; recommends optimum approach and develops system design for approved projects. Interprets information and informally arbitrates between system users when conflicts exist. May serve as lead analyst in a design subgroup, directing and integrating the work of one or two lower level analysts, each responsible for several programs.

Supervision and nature of review are similar to level II; existing systems provide precedents for the operation of new subsystems.

29000 TECHNICAL OCCUPATIONS

This category includes occupations concerned with providing technical assistance to engineers and scientists in both laboratory and production activities as well as occupations concerned with independently operating and servicing technical equipment and systems. Characteristic of occupations in this category is the requirements for a knowledge of scientific, engineering, and mathematical theories, principles and techniques that is less than full professional knowledge but which nevertheless enables the technician to understand how and why a specific device or system operates.

The technician solves practical problems encountered in fields of specialization, such as those concerned with development of electrical and electronic circuits, and establishment of testing methods for electrical, electronic, electromechanical, and hydromechanical devices and mechanisms; application of engineering principles in solving design, development, and modification problems of parts or assemblies for products or systems; and application of natural and physical science principles to basic or applied research problems in fields, such as metallurgy, chemistry, and physics. May perform technical procedures and related activities independently.

Workers with the title of Technician who are concerned primarily with maintenance and repair are classified with Mechanics and Maintenance and Repair Occupations.

[29010 Air Traffic Control Specialist, Center](#)

[29011 Air Traffic Control Specialist, Station](#)

[29012 Air Traffic Control Specialist, Terminal](#)

[29023 Archeological Technician I](#)

[29024 Archeological Technician II](#)

[29025 Archeological Technician III](#)

[29030 Cartographic Technician](#)

[29035 Computer Based Training \(CBT\) Specialist/Instructor](#)

[29040 Civil Engineering Technician](#)

[29061 Drafter I](#)

[29062 Drafter II](#)

[29063 Drafter III](#)

[29064 Drafter IV](#)

[29081 Engineering Technician I](#)

[29082 Engineering Technician II](#)

[29083 Engineering Technician III](#)

[29084 Engineering Technician IV](#)

[29085 Engineering Technician V](#)

[29086 Engineering Technician VI](#)

[29090 Environmental Technician](#)

[29100 Flight Simulator/Instructor \(Pilot\)](#)

[29150 Graphic Artist](#)

[29160 Instructor](#)

[29210 Laboratory Technician \(Laboratory Tester\)](#)

[29240 Mathematical Technician](#)

[29390 Photo-Optics Technician](#)

[29480 Technical Writer](#)

[29490 Unexploded Ordnance Technician](#)

[29620 Weather Observer, Senior](#)

[29621 Weather Observer, Combined Upper Air and Surface Programs](#)

[29360 Paralegal/Legal Assistant](#)

[29361 Paralegal/Legal Assistant I](#)

[29362 Paralegal/Legal Assistant II](#)

[29363 Paralegal/Legal Assistant III](#)

[29364 Paralegal Specialist IV](#)

29035 COMPUTER BASED TRAINING (CBT) SPECIALIST/INSTRUCTOR

Has primary responsibility for the effective delivery of instruction by means of computer. During the design phase of Instructional Systems Development (ISD), contributes to the effective use of graphics, windowing, animation, feedback, and branching. Plans, designs, and coordinates the use of the Interactive Video Disc. Uses hardware and software to input data efficiently and to program and restructure both the Computer Aided Instruction and Computer Managed Instructional Programs. Verifies tests and validates computer based courseware.

29081 ENGINEERING TECHNICIAN I

Performs simple routine tasks under close supervision or from detailed procedures. Work is checked in progress or on completion. Performs one or a combination of such typical duties as:

- Assembles or installs equipment or parts requiring simple wiring, soldering, or connecting.
- Performs simple or routine tasks or tests such as tensile or hardness tests; operates and adjusts simple test equipment; records test data.
- Gathers and maintains specified records of engineering data such as tests, drawings, etc.; performs computations by substituting numbers in specified formulas; plots data and draws simple curves and graphs.

29160 INSTRUCTOR

Teaches courses in one or more subjects in commercial, governmental, industrial or service establishments. Prepares instructional program in accordance with training or other course requirements, assembling materials to be presented. Instructs students in the theoretical and practical aspects covering the subjects being taught. Utilizes such teaching methods as individual coaching, group discussions, lectures, demonstrations, seminars, and workshops. Selects or develops teaching aids such as wall charts, prepared notes, tape recordings, radio, television, films, film strips, and training handbooks. Supervises practical work carried out by students, and assists them at points of difficulty. Tests students to evaluate their learning progress and to evaluate effectiveness of instruction. Compiles assessment report regarding each student. May arrange visits to or periods of employment in real-work situations to reinforce instruction.

29240 MATHEMATICAL TECHNICIAN

Applies standardized mathematical formulas, principles, and methodology to technological problems in engineering and physical sciences in relation to specific industrial and research objectives, processes, equipment and products. Confers with professional, scientific, and engineering personnel to plan project. Analyzes raw data recorded on magnetic tape, punched cards, photographic film or other media. Selects most practical and accurate combination and sequence of computational methods using algebra, trigonometry, geometry, vector analysis and calculus to reduce raw data to meaningful and manageable terms. Selects most economical and reliable combination of manual, mechanical, or electronic data processing methods and equipment consistent with data reduction requirements. Modifies standard formulas to conform to data processing method selected. Translates data into numerical values, equations, flow charts, graphs or other media. Analyzes processed data to detect errors. May operate card punching or sorting machines, calculators, or data processing equipment.

29480 TECHNICAL WRITER

Develops, writes, and edits material for reports, manuals, briefs, proposals, instruction books, catalogs, and related technical and administrative publications concerned with work methods and procedures, and installation, operation, and maintenance of machinery and other equipment. Receives assignment from supervisor. Observes production, developmental, and experimental activities to determine operating procedure and detail. Interviews production and engineering personnel and reads journals, reports, and other material to become familiar with product technologies and production methods. Reviews manufacturer's and trade catalogs, drawings and other data relative to operation, maintenance, and service of equipment. Studies blueprints, sketches, drawings, parts lists, specifications, mockups, and product samples to integrate and delineate technology, operating procedure, and production sequence and detail. Organizes material and completes writing assignment according to set standards regarding order, clarity,

conciseness, style, and terminology. Reviews published materials and recommends revisions or changes in scope, format, content, and methods of reproduction and binding. May maintain records and files of work and revisions. May select photographs, drawings, sketches, diagrams, and charts to illustrate material. May assist in laying out material for publication. May arrange for typing, duplication and distribution of material. May write speeches, articles, and public or employee relations releases. May edit, standardize, or make changes to material prepared by other writers or plant personnel. May specialize in writing material regarding work methods and procedures.

99050 DESK CLERK

Performs any combination of the following duties for guests of hotel, motel, or other lodging facility: Registers and assigns rooms to guests. Issues and receives room keys. Date-stamps, sorts, and racks incoming mail and messages. Receives and transmits messages, using equipment such as telephone switchboard, console, telegraph, and Teletype. Answers inquiries pertaining to establishment services, shopping, dining, entertainment, and travel directions. Keeps records of room availability and guests' accounts. Computes bill, collects payment, and makes change for guests. Makes and confirms room reservations. May post charges such as room, food, liquor, or telephone to cash books by hand or machine. May make restaurant, transportation, or entertainment reservations, and arrange for tours. May deposit guests' valuables in safe or safe-deposit box. May sell tobacco, candy, and newspapers.

23000 MECHANICS AND MAINTENANCE AND REPAIR OCCUPATIONS

This category includes occupations concerned with maintaining and repairing buildings, grounds, and related facilities; and with installing, repairing, rebuilding, and maintaining in efficient operating condition a wide variety of engines and mechanical equipment designed for use in domestics, commercial, industrial, and agricultural activities.

[23010 Aircraft Mechanic \(Airframe and Power Plant Mechanic\)](#)

[23040 Aircraft Mechanic Helper \(Airframe and Power Plant Mechanic Helper\)](#)

[23050 Aircraft Quality Control Inspector](#)

[23060 Aircraft Service \(Aircraft Utility Worker\)](#)

[23070 Aircraft Worker](#)

[23100 Appliance Mechanic](#)

[23120 Bicycle Repairer](#)

[23125 Cable Splicer](#)

[23130 Carpenter, Maintenance](#)

[23140 Carpet Layer](#)

[23160 Electrician, Maintenance](#)

[23181 Electronics Technician, Maintenance I](#)

[23182 Electronics Technician, Maintenance II](#)

[23183 Electronics Technician, Maintenance III](#)

[23210 Elevator Repairer](#)

[23220 Elevator Repairer Helper](#)

[23230 Elevator Repairer Helper, Probationary](#)

[23260 Fabric Worker](#)

[23290 Fire Alarm Systems Mechanic](#)

[23310 Fire Extinguisher Repairer](#)

[23340 Fuel Distribution System Mechanic](#)

[23370 General Maintenance Worker](#)

[23400 Heating, Refrigeration and Airconditioning Mechanic](#)

[23430 Heavy Equipment Mechanic](#)

[23440 Heavy Equipment Operator](#)

[23460 Instrument Mechanic](#)

[23470 Laborer](#)

[23500 Locksmith](#)

[23530 Machinery Maintenance Mechanic](#)

[23550 Machinist, Maintenance](#)

[23580 Maintenance Trades Helper](#)

[23640 Millwright](#)

[23700 Office Appliance Repairer](#)
[23740 Painter, Aircraft](#)
[23760 Painter, Maintenance](#)
[23790 Pipefitter, Maintenance](#)
[23800 Plumber, Maintenance](#)
[23820 Pneudraulic Systems Mechanic](#)
[23850 Rigger](#)
[23870 Scale Mechanic](#)
[23890 Sheet-metal Worker, Maintenance](#)
[23910 Small Engine Mechanic](#)
[23930 Telecommunications Mechanic I](#)
[23931 Telecommunications Mechanic II](#)
[23950 Telephone Lineman](#)
[23960 Welder, Combination, Maintenance](#)
[23965 Well Driller](#)
[23970 Woodcraft Worker](#)
[23980 Woodworker](#)

23181 ELECTRONICS TECHNICIAN, MAINTENANCE I

Applies technical knowledge to perform simple or routine tasks following detailed instructions. Performs such tasks as replacing components and wiring circuits; repairing simple electronic equipment; and taking test readings using common instruments such as digital multimeters, signal generators, semiconductor testers, curve tracers, and oscilloscopes.

Receives technical guidance, as required, from supervisor or higher level technician. Work is spot-checked for accuracy.

23182 ELECTRONICS TECHNICIAN, MAINTENANCE II

Applies comprehensive technical knowledge to solve complex problems by interpreting manufacturers' manuals or similar documents. Work requires familiarity with the interrelationships of circuits and judgment in planning work sequence and in selecting tools and testing instruments.

Receives technical guidance, as required, from supervisor or higher level technician, and work is reviewed for compliance with accepted practices. May provide technical guidance to lower level technicians.

23183 ELECTRONICS TECHNICIAN, MAINTENANCE III

Applies advanced technical knowledge to solve unusually complex problems that typically cannot be solved solely by referencing manufacturers' manuals or similar documents. Examples of such problems include determining the location and density of circuitry, evaluating electromagnetic radiation, isolating malfunctions, and incorporating engineering changes.

Work typically requires a detailed understanding of the interrelationships of circuits. Exercises independent judgment in performing such tasks as making circuit analyses, calculating wave forms, and tracing relationships in signal flow. Uses complex test instruments such as high frequency pulse generators, frequency synthesizers, distortion analyzers, and complex computer control equipment. Work may be reviewed by supervisor for general compliance with accepted practices. May provide technical guidance to lower level technicians.

23930 TELECOMMUNICATIONS MECHANIC I

Installs, removes, maintains, modifies, troubleshoots, and repairs voice and/or nonvoice communications systems including intercom and public address systems; alarm systems; teletype equipment; and electronic and electromechanical telephone key systems/PBAXs; terminal and communications equipment, including line drivers.

Runs cables, key cables, or house wire to all telephone sets, terminal connectors, lugs, pins, or screws, associated with key telephone equipment and/or terminating equipment for nonvoice circuits.

23931 TELECOMMUNICATIONS MECHANIC II

Installs, tests, troubleshoots, programs, maintains, and repairs digital switching equipment, attendant consoles, power and ringing relay racks, miscellaneous telephone, radio, fire alarms, intrusion alarms, and computer data circuits and related apparatus required in the central switching office. Analyzes system failures and other unusual system occurrences to isolate the source of the problem and determine whether the failure is caused by software, hardware, or other factors. They maintain manual and/or computerized central office records, including detail records, traffic analysis records, cable records, line records, subscriber service records and spare parts inventories.

13000 INFORMATION AND ARTS OCCUPATIONS

This category includes occupations concerned with the communication of information and ideas through verbal, visual, or pictorial means; the collection, custody, presentation, display, and interpretation of art works, cultural objects, and other artifacts; or a branch of fine or applied arts such as industrial design, interior design, or musical composition.

[13002 Audiovisual Librarian](#)

[13011 Exhibits Specialist I](#)

[13012 Exhibits Specialist II](#)

[13013 Exhibits Specialist III](#)

[13041 Illustrator I](#)

[13042 Illustrator II](#)

[13043 Illustrator III](#)

[13047 Librarian](#)

[13050 Library Technician](#)

[13071 Photographer I](#)

[13072 Photographer II](#)

[13073 Photographer III](#)

[13074 Photographer IV](#)

[13075 Photographer V](#)

13041 ILLUSTRATOR I

Duties require the ability to use common media such as tempera, oils, pen-and-ink, or pencil with average skill. Copies drawings, either by tracing or freehand. Applies coloring or wash to line drawings; letters by hand or by use of templates; and does detail or background work on illustrations which have been prepared by an illustrator of higher grade.

When working with scientific subjects and technical equipment, acquires basic knowledge of subject matter field and develops information about the field of work that will be illustrated. When working in the general fields of illustrating, acquires necessary information about subject of the illustrations or applies general knowledge to the subject.

13042 ILLUSTRATOR II

This worker usually is assigned to projects involving several of the common art media such as pen-and-ink, pencil, tempera, wash, oils, and airbrush over a period of time. These projects require the illustrator to be proficient in the use of these media and in executing acceptable drawings in many styles. Generally speaking, Illustrator II executes drawings that have been conceived by others and presented in the form of rough sketches.

Does not exercise an extensive knowledge of the subject matter involved when preparing medical, scientific or technical equipment illustrations. Acquires information about the subject assigned to illustrate and develop a

background of subject matter knowledge through carrying out these illustrating assignments. However, the kind of illustrating work assigned does not require an extensive prior knowledge about the subjects illustrated.

13043 ILLUSTRATOR III

The projects to which this worker is assigned usually involve several of the common art media (as in the case of Illustrator II), but the illustrations themselves typically require a higher degree of skill in the use of many of the media. This degree of skill is required because (a) the speed with which the illustration must be completed requires the ability to work quickly and competently in order to produce an acceptable finished product within the available time limit; (b) the illustration calls for the use of fine detail, special artistic effects, or an unusual use of the chosen medium; or (c) the method of reproduction, the use to which the illustration is to be put, or the information or artistic results desired calls for exceptional care and skill in the use of the medium.

The themes illustrated may be either concrete in nature or they may represent ideas and abstract concepts. The illustrations differ from those typical of Illustrator II in that they are expected to interpret the publications, chart, poster, or exhibit in which they appear, while Illustrator II presents factual rather than interpretative material.

Illustrator III is required to have a knowledge of a specialized subject matter field such as medicine, science, or technical equipment. Prepares illustrations that are designed to reproduce the appearance of specific medical or scientific specimens or of pieces of technical equipment.